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AMSAT NEWS SERVICE
ANS-274

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

The AMSAT News Service Bulletins are delivered weekly to your e-mail address. The subscription form can be accessed at:
http://www.amsat.org/mailman/listinfo/ans

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ANS-274 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 274.01
 >From AMSAT HQ KENSINGTON, MD.
DATE October 1, 2017
To All RADIO AMATEURS
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Get Ready for the 2017 AMSAT Space Symposium and Annual Meeting
Everything you need to know and get done today

Here is a summary of what you need to do to get ready for the 2017 AMSAT-NA Space Symposium and Annual Meeting, October 27-29, 2017 at the Silver Legacy Resort Hotel, Reno, NV.

2017 Annual AMSAT Symposium important deadlines.

The last day to reserve a meal at the Saturday Evening Banquet is

Sunday, October 8, 2017.

The last day to register online at the Silver Legacy with the guaranteed rate is Friday, October 12, 2017.

The last day to register online is Friday, October 20, 2017.

The last day to reserve a seat at the Area Coordinators Breakfast is Wednesday, October 25, 2017.

If you miss the Registration Deadline, you may still show up at the door and pay $55. There will be no late orders for the Banquet or Breakfast as this has to do with the rooms and tables necessary.

Complete Your Symposium Registration in the AMSAT Store

You can register for the 2017 Space Symposium, the Saturday Evening Banquet, the Sunday Morning Area Coordinators breakfast, the Sunday afternoon tour to Virginia City, and the Monday tour to Lake Tahoe in the AMSAT store: https://www.amsat.org/shop/

Symposium Registration (including a copy of the Proceedings)
+ Starting September 15 -- $50
+ At the door -- $55

Make Your Reservations for the Symposium Hotel in Reno

You must make your hotel reservations at the Silver Legacy at this link: https://www.amsat.org/symposium-hotel/ (block code ISAMSAT)
The hotel phone number is 1-800-687-8733.

TO GUARANTEE OUR RATES PLEASE MAKE YOUR RESERVATIONS BEFORE OCTOBER 12, 2017.

The Silver Legacy is a 4-star Resort/Hotel/Casino which is an iconic 42-story hotel with its massive round dome and spires centered in downtown Reno.

2017 AMSAT-NA Space Symposium Schedule Announced

The Schedule for the 2017 AMSAT-NA Space Symposium and Annual Meeting, October 27-29, 2017 at the Silver Legacy Resort Hotel, Reno, NV.

Check the Symposium Web Page for updates and new information as it becomes available: https://www.amsat.org/symposium-schedule/

2017 AMSAT-NA Space Symposium Tours Announced

The 2017 AMSAT Space Symposium will be held Friday, Saturday, and Sunday, Oct 27-29 in Reno. There will be two tours of the sights around Reno offered after the Symposium ends on Sunday morning.

The first tour is offered on Sunday October 29, 10:00AM to 4:00PM
This tour will visit Historical Virginia City. Tour cost is $46 per person. Lunch will be on your own.

The second tour is offered on Monday October 30, 8:30AM to 5:30PM
This tour will Discover Truckee, the Donner Party, Lake Tahoe & Genoa. The tour cost is $80 per person. There is an optional Lake Tahoe Cruise on a paddle-wheel ship available. The tour cost with the

Lake Tahoe Cruise is $147 per person. Lunch is provided with either tour option.

A description of the tours has been posted at https://www.amsat.org/symposium-tours/

Complete tour information is available by paging through each tour description and a link to purchase the tour through the AMSAT Store is provided below the description. You may also purchase all Symposium events at the AMSAT Store. https://www.amsat.org/product-category/amsat-symposium/

Introducing Banquet Keynote Speaker Garrett L. Skrobot, NASA Cubesat Launch Initiative Program, Kennedy Space Center

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Garrett was born in Myrtle Beach, S.C., but moved to West Cocoa, Florida at the age of six months. Immediately after graduating from Cocoa High School in 1980, Garrett began a four-year tour of duty in the United States Marine Corp that took him around the world.

In 1988 Garrett earned a Bachelor of Science in electrical engineering from the University of Tennessee; he later received his master's degree in space systems from the Florida Institute of Technology in 1992.

Garrett joined the NASA team at Kennedy Space Center in 2000 as an Integration Engineer for the Launch Services Program. Prior to his work with NASA, Garrett was employed by General Dynamics as a System Engineer for the Atlas/Centaur booster program. During his tenure with General Dynamics, Garret participated in more than 50 launches while working in the Electrical, Ground Instrumentation, Payload Mission Integration, Telemetry and Project Management divisions.

Garrett continues to live in Cocoa with his wife and their three daughters. In his free time, Garrett enjoys nature photography, fishing, and actively supporting his daughters in their sports. Garrett himself is also an accomplished athlete, having earned a black belt in karate.

[ANS thanks the 2017 AMSAT-NA Symposium Committee for the above information]

Last Call for 2017 AMSAT Space Symposium Papers

This is the last call for papers for the 2017 AMSAT Annual Meeting and Space Symposium to be held on the weekend of October 27, 28, 29, 2017 at the Silver Legacy Resort, Reno, Nevada.

Proposals for papers, symposium presentations and poster presentations are invited on any topic of interest to the amateur satellite community. We request a tentative title of your presentation as soon as possible, with final copy to be submitted by October 6 for inclusion in the printed proceedings. Abstracts and papers should be sent to Dan Schultz N8FGV at n8fgv at amsat.org

[ANS thanks Dan, N8FGV, for the above information]

International Space Station Astronauts are Calling CQ Students -
ARISS-US program education proposal deadline is November 15, 2017

September 18, 2017: The Amateur Radio on the International Space Station (ARISS) program is seeking proposals from U.S. schools, museums, science centers and community youth organizations to host radio contacts with an orbiting crew member aboard the International Space Station (ISS) between July 1 and December 31, 2018.

Each year, ARISS provides tens of thousands of students with opportunities to learn about space technologies and space communications through the exploration of Amateur Radio. The program provides learning opportunities by connecting students to astronauts aboard the International Space Station (ISS) through a partnership between NASA, the American Radio Relay League, the Radio Amateur Satellite Corporation and other Amateur Radio organizations and worldwide space agencies. The program's goal is to inspire students worldwide, to pursue interests and careers in science, technology, engineering and mathematics (STEM) through Amateur Radio.

Educators overwhelmingly report that student participation in the ARISS program inspires an interest in STEM subjects and in STEM careers. Ninety-two percent of educators who have participated in the program have indicated that ARISS provided ideas for encouraging student exploration, discussion, and participation, and 78 percent said that ARISS was effective in stimulating student interest in STEM.

ARISS is looking for organizations that will draw large numbers of participants and integrate the contact into a well-developed education plan. Students can learn about satellite communications, wireless technology, science research conducted on the space station, what it is like to work in space, radio science, and any related STEM subject. Students learn to use Amateur Radio to talk directly to an astronaut and ask their STEM-related questions. ARISS will help educational organizations locate Amateur Radio groups who can assist with equipment for this once-in-a-lifetime opportunity for students.

The proposal deadline for 2018 contacts is November 15, 2017.

The ARISS website has additional details on expectations, proposal guidelines, and the proposal form. See:
http://www.ariss.org/hosting-an-ariss-contact-in-the-us.html

About ARISS

Amateur Radio on the International Space Station (ARISS) is a cooperative venture of international amateur radio societies and the space agencies that support the International Space Station (ISS). In the United States, sponsors are the Radio Amateur Satellite Corporation (AMSAT), the American Radio Relay League (ARRL), the Center for the Advancement of Science in space (CASIS) and National Aeronautics and Space Administration (NASA). The primary goal of ARISS is to promote exploration of science, technology, engineering, and mathematics (STEM) topics by organizing scheduled contacts via

amateur radio between crew members aboard the ISS and students in classrooms or public forms. Before and during these radio contacts, students, educators, parents, and communities learn about space, space technologies, and amateur radio. For more information, see www.ariss.org.

Also join us on Facebook: Amateur Radio on the International Space Station (ARISS). Follow us on Twitter: ARISS_status

[ANS thanks ARISS for the above information]

Daniel "Nick" Kucij, KB1RVT, Silent Key

It is with a sad heart that I am writing this email, Nick, KB1RVT's, family contacted me and asked me to relay this information:

Nick, while riding a bicycle trail in Vermont over the weekend, suffered a fall, he apparently suffered some head injuries resulting in hemorrhaging in the brain and passed away suddenly, local paramedics were quickly on the scene & worked vigorously to tend to his injuries.

The family is still in the process of contacting people & asked me to reach out to the satellite community.

Any details about the arrangements should be in the local Burlington Free Press newspaper,

http://www.legacy.com/obituaries/burlingtonfreepress/obituary.aspx?n=daniel-nicholas-kucij&pid=186774388

As I receive any additional information I will post it to the various BB's. Please pass any information along any of the other social media conveyances.

Nick will be missed by the satellite community.

[ANS thanks Frank, K4FEG for the above information]

AMSAT Pioneer Patrick J. A. Gowen, G3IOR, Silent Key

Pat Gowen, G3IOR, of Norwich, Norfolk, passed away on August 17, after a long illness. He was 85. The amateur-satellite world has lost one of its true pioneers. Pat was a co-founder of AMSAT-UK, and was elected to the board of directors of AMSAT-NA in 1974. He was also the longtime satellite columnist of Practical Wireless, as well as a frequent contributor to The AMSAT Journal and Oscar News.

He was the first to work 100 DXCC entities via satellite (all LEOs), and received Satellite DXCC No. 4 when his QSL cards arrived. Fluent in Russian, Pat enjoyed conversing with the cosmonauts aboard MIR and ISS. He and I made the first transatlantic QSO between two handheld

transceivers, in 1991.

More recently, Pat was the first to discover the “re-birth” of AMSAT-OSCAR 7 when its battery returned to life in sunlight. In addition to his work with AMSAT and satellites, Pat was a prominent HF operator and DXer. He had confirmed QSOs with all DXCC entities and had also been a member of the First Class CW Operators Club (FOC), as well as a leading member of the Norfolk Amateur Radio Club. Literally hundreds of new amateurs obtained their licenses as a result of Pat’s NARC training classes.

Martin Sweeting, G3YJO, Chairman of AMSAT-UK and founder of Surrey Satellite Technology, Ltd. (SSTL) remembered Pat this way, "If my memory serves me well, I first met Pat G3IOR sometime in the mid-1970’s when I became interested in space and naturally amateur radio satellites - starting with OSCAR-6. In 1975, Pat was a founding member and sometime Chairman of AMSAT-UK along with other stalwarts such as Roy Stevens G2BVN, Arthur Gee G2UK and Richard Limebear G3RWL and had a strong interest in not only the OSCAR series but also especially the RS satellites from the then Soviet Union. Starting in late 1973, Pat produced the first editions of OSCAR News as a typed newsletter providing essential orbit tracking information for the new OSCAR-6 satellite (at a time before easy access via the internet!) and contributed more timely updates and observations via the AMSAT-UK 80-metre net each Sunday morning - along with a news round-up each month transmitted by G3RWL. Pat attended and contributed to the early AMST-UK Colloquia at Surrey. In June 21, 2002 Pat surprised the AMSAT community by detecting CW signals from the long-believed defunct OSCAR-7 satellite whose batteries had failed in 1981 but came back to life after the batteries eventually went open circuit enabling operations in sunlight to this day! Pat was passionate about amateur radio, amateur satellites and the environment; he contributed much over his long life to each of these and will be sadly missed. "

Professionally, Pat was a biochemist, retired from the University of East Anglia. He had also served as a magistrate in the Norfolk courts, the youngest in England at the time. No mention of Pat would be complete without noting his decades of work in cleaning up the beaches and waters of his beloved Norfolk. He leaves his wife Norma, a noted landscape artist.

[ANS thanks Ray Soifer, W2RS for the above information]

AMSAT Phase4 weekly report - User Input for Remote Operation

AMSAT's Ground Station Lead Michelle Thompson, W5NYV has posted the video for the Phase4 weekly report at: https://www.youtube.com/watch?v=vvuadtqp_k0

Remote operation is one of the most talked about and most requested feature in amateur radio.

Remote operation enables performance improvements (one can put the radio closer to the antenna and put the antenna in the best possible location), allows more comfortable and flexible operating positions (operate from your iPad by the pool), and dramatically increases potential coverage area (remote stations can be located where they provide more public service).

Remote operations are a great way to learn about radio, networking, reliability, and protocols. They are a big educational win. The problem is easily defined and arguably the performance can be easily measured, but there is plenty more to be done to improve the current state of the art in remote operations.

We want to define what we're doing for remote operations that doesn't reinvent the wheel or hold us back.

Linux has several time-tested tools and applications. There are some proprietary solutions. There's a lot of DIY remote operations. A lot of you have experience setting up remote operations.

Here's where we want to start.

+ What works? What is solvable? What is not currently solvable?

+ What should necessarily be included in Phase 4 Ground radios for successful remote operations?

Steve Conklin (https://twitter.com/sconklin) is our linux platform lead and is very interested in getting this right. Please help him with your feedback and input.

[ANS thanks Michelle Thompson, W5NYV for the above information]

ARISS News

Recent Contacts

Colegio Nueva Concepcion, San Miguel de Tucuman, Argentina, direct via LU1KCQ
The ISS callsign was scheduled to be NA1SS
The scheduled astronaut was Joe Acaba KE5DAR
Contact was successful: Thu 2017-09-28 17:51:00 UTC 37 deg

Heart of America Council Boy Scouts of America, Kansas City, MO, telebridge via W6SRJ
The ISS callsign was scheduled to be NA1SS
The scheduled astronaut was Paolo Nespoli IZ0JPA
Contact was successful: Sat 2017-09-23 12:03:49 UTC 26 deg

Boston Red Sox Outreach to School Groups, Boston, MA, telebridge via W6SRJ
The ISS callsign was scheduled to be NA1SS
The scheduled astronaut was Paolo Nespoli IZ0JPA
Contact was successful: Thu 2017-09-14 15:03:58 UTC 56 deg

Beenleigh State High School, Beenleigh, Queensland, Australia, telebridge via K6DUE
The ISS callsign was scheduled to be NA1SS
The scheduled astronaut was Paolo Nespoli IZ0JPA
Contact was successful: Mon 2017-09-11 12:58:34 UTC 77 deg

Meadows Elementary School, Manhattan Beach, CA, direct via KM6BWB
The ISS callsign was scheduled to be NA1SS
The scheduled astronaut was Paolo Nespoli IZ0JPA

Contact was successful: Fri 2017-09-08 17:05:30 UTC 67 deg (***)
Live streamed at
https://www.youtube.com/watch?v=oRsKV6gBmGU

West Virginia University, Lane Dept. of Computer Science & Electrical
Engineering, Morgantown, WV, direct via W8CUL
The ISS callsign was scheduled to be NA1SS
The scheduled astronaut was Paolo Nespoli IZØJPA
Contact was successful Mon 2017-09-04 15:50:05 UTC 79 deg

Upcoming Contacts:

Kugluktuk High School, Kugluktuk Nunavut, Canada, telebridge via
IK1SLD.
The ISS callsign is presently scheduled to be IRØISS
The scheduled astronaut is Paolo Nespoli IZØJPA
Contact is a go for Option #5: Tue 2017-10-03 15:32:57 UTC 30 deg

[ANS thanks ARISS and Charlie, AJ9N for the above information]

Satellite Shorts From All Over

High Altitude Test Flight Scheduled for AMSAT SA Kletskous CubeSat

South Africa AMSAT wrote, "We have some exciting news! Our
Kletskous CubeSat is scheduled to fly on BACAR High Altitude
Balloon flight on the 21 October 2017."

The AMSAT SA Kletskous team is putting the final touches on
the CubeSat to be tested on the BACAR flight this October.
The team is integrating the electrical power system (EPS),
the stabilizer board, the on-board computer system, the
transponder and antennas into the new space frame. No
solar panels will be flown on balloon flight configuration.
Kletskous will only be powered by its batteries.

BACAR is scheduled to be launched at 9am from an airfield
near Secunda, South Africa which is south east of Johannesburg.
Kletskous is one of many payloads to be flown.

The transponder frequencies are as follows:
Uplink: 435,135 - 435,165 MHz
Downlink: 145,850 – 145,880 MHz

Kletskous is a crowd funded project. Please become part of the
project by donating to the Kletskous fund. Details and regular
updates can be found on www.amsatsa.org.za. All donors are
acknowledged on the website.

[ANS thanks AMSAT SA for the above information]

Australis Oscar 5 recalled at a book launch

(From the WIA-The Wireless Institute of Australia with additional
audio and interviews at https://vimeo.com/191605076)

Australia's first 'home grown' satellite was built in 1966, then sent to the USA for launch, but unfortunately this did not take place until January 1970 on a Delta rocket from the Vandenberg Air Force Base.

Australis Oscar 5, or AO-5, was the product of a keen group of enthusiasts from Melbourne University, together with a number of local radio amateurs, and the WIA providing some assistance, finance, and guidance.

The late Bill Rice VK3ABP, who was the Victorian tracking co-ordinator and long-time Amateur Radio magazine editor, recalls those days in an audio played on the VK1WIA broadcast. In it he told of how the satellite reached the USA ready for launch, but had to wait until 1970 after AMSAT the Radio Amateur Satellite Corporation was formed, taking over from the then defunct OSCAR Association.

The satellite did not have a translator, noted Bill VK3ABP, but its telemetry was the most advanced for an amateur satellite of the time. It could be turned on and off by ground stations, and this was mostly done by Les Jenkins VK3ZBJ.

A book on those times was launched recently, before a number of guests including the WIA, in the building where the Melbourne University Astronautical Society met to discuss the possibility of a satellite and building it.

In introducing the author was Richard Tonkin, who built the satellite along with a very talented radio amateur Les Jenkins VK3ZBJ (sk). Mr Tonkin noted that a professor told a student to "stop this silly satellite stuff". The team which realized no-one had built a satellite in Australia, just got on with it.

Book author Dr Owen Mace talked about how fitting the room was for the launch because it had been used by the satellite team.

At the time, sophisticated electronic measurements were necessary on the satellites stabilization system, and access to a laboratory at the university helpful.

WIA Historian Peter Wolfenden VK3RV says many radio amateurs were involved, a few on the design side, others associated with command and many with tracking it during its six week life. These included Les Jenkins VK3ZBJ, Michael Owen VK3KI, David Rankin VK3QV, Ray Naughton VK3ATN, and Bill Rice VK3ABP - all silent keys.

There were also many local Australian, Japanese, New Zealander and Malaysian coordinators, and some recordings were taken of the AO-5 telemetry.

A fuller story is being prepared for publication in the WIA journal Amateur Radio magazine.

Meantime, University of Melbourne students are now well advanced to build a nano-satellite, with the Wireless Institute of Australia (WIA) assisting in the IARU frequency and other coordination processes.

Through the Melbourne Space Program affiliated with the University of Melbourne, the nano-satellite is due to be handed over in November and launched in early 2018.

Also there has been a strong link on space matters with National Aeronautics and Space Administration (NASA), but now it has been formally announced Australia will have its own space agency.

An event which mostly went unnoticed was in Adelaide last Wednesday it was a presentation called " How we built Australia's first satellite" again by Richard Tonkin and Dr Owen Mace.

Those who were lucky enough to have been notified heard how two young University students in the 1950's, fascinated with space, built Australia's first satellite.

[ANS thanks the Wireless Institute of Australia VK1WIA News October 1, 2017 for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Joe Spier, K6WAO
k6wao at amsat dot org